

### ABSTRACT

Disclosed is a reinforced polymeric pad comprising a polymeric gel and a substrate encapsulated within an envelope. The substrate can have a density less than that of the gel. The gel typically comprises an epoxidized vegetable oil, a thermoplastic polymer and a prepolymer and the substrate may be formed from a foamed plastic. The reinforced polymeric pad exhibits low rebound velocity and hysteresis, and possesses good energy-attenuating properties and is capable of absorbing repeat shocks without structural damage.